

PART FOUR

Plan of Supplies and Equipment for Electricity Sector

47. The inadequacy of electricity, due to the damage inflicted upon this vital sector and non-availability of spare parts and equipment for maintenance, is a serious problem throughout the whole of Iraq. This fact has been confirmed by UN reports and the report of the UN Secretary-General on the implementation of the distribution plan in November 1997, which referred to the shortage of electrical power and the adoption of a daily load shedding throughout Iraq. In July 1996, the shortage was 1600 MW. In 1997 the maximum summer load was 5300 MW and it was 5600 MW during 1998, and 5700 MW in 1999 as shown in the attached table while reached to 6200MW during the load survey done on each governorate, i.e the shortage will be 2300 MW instead of 1800MW. Low water levels, adding at least another 300 MW deficit to the present deficit of 1800 MW, already seriously affect hydro-electrical power generation. Thus, the shortage of electricity will further increase as demand is increasing while generation is falling. Annex-I/electricity shows a diagram of the designed capacity, the maximum available capacity, the peak load and the shortage of power generation during August 1999. As a result of the unplanned failures of some units, protection relays start operating to save the network from complete shutdown. This causes severe power cuts to all types of consumers including hospitals, water plants, sewage plants, wheat milling plants, irrigation and drainage pumping stations, schools and universities and other social services as reflected in the report of the UN Secretary-General of 12 November 1999(S/1999/1162).

48. To address urgent needs, a sum of US\$ 321 million is allocated in this plan; the details of which are contained in annex-2/electricity and the annexes of the three northern governorates. The Plan concentrates on increasing generation, as there is a severe shortage of power, by installing new gas turbine generation units and carrying out rehabilitation and repairs to some of the large thermal, gas turbine and hydro-electric power generation stations throughout Iraq. Part of the sum is also allocated to transmission, distribution and relay networks in different parts of Iraq.

It is proposed to install new gas turbine units alongside the existing, Baiji, Shamal, Mussayeb, Rashidiya, and other gas turbine power stations, at an estimated cost of US\$ 100 million. These new units are expected to add around 200 MW of power to the grid depending on the weather conditions. A sum of US\$ 50 million has been allocated for rehabilitation of the gas turbine generating units at Khor Al-Zubair, Najef, and maintenance of other gas turbine power stations. The gas turbine generating units will be rehabilitated

and this is expected to add 70 MW to the national grid. In the thermal generating plants of Baiji, Mussaib, Dura , Baghdad south and other power stations there are plans for rehabilitation on a turn-key project basis, possibly with the original equipment manufacturers, including technical services, costs estimated are around US\$ 100 million. With this rehabilitation, the generating units are expected to add 160 MW to the grid. US\$ 35 millions are allocated for maintenance and repairs to the hydro- generation units at Qadissia and Saddam power plants and the new hydro power plants in Al-Adhaim and SINHAREEB. These are for urgently required repairs to ensure the system remains operational, but an increase in generation is not anticipated in the plan. Although the transmission and distribution networks are in bad need of rehabilitation. With the limited available funds, a sum of US\$ 30 million has been allocated for the distribution network and US\$ 15 million for the transmission network. To start with the construction of power plants in Yousifiya, Al-Shemal, Al-Anbar, and extension of Nassiriya . Asum of US\$ 100 million is required to be allocated .The above mentioned figures could be varied according to the urgency of the system requirements at the time of order. The commission of Electricety is fully aware that the combined total of these priority projects exceeds what is allocated for the sector. However, it should be stressed that the above figures are indicative for planning purposes and show the scale of resources which are required to implement the above-mentioned projects.

49. For the three northern governorates where the dilapidated condition of the electricity network mirrors that of the rest of Iraq, the objectives are i) the rehabilitation of the electricity network including transmission lines, substations and distribution system, ii) the installation of additional generation capacity to address emergency generation requirements, iii) to ensure the reliability of the hydro-power stations at the Dokan and Derbandikhan Dams and iv) the enhancement of the local capacity to manage and operate the electricity network. The repairs to secure the draft tubes at the Derbandikhan Dam are nearing completion and the repairs to ensure structural integrity of both the dams have been completed. The present drought conditions have seriously affected the electricity supply situation and if the drought conditions continue, further immediate action to address the humanitarian needs may be necessary while the urgent rehabilitation work continues. Finally, a significant share of resources will be allocated to follow up investment on new generation taking into account medium and long term recommendations of the comprehensive feasibility study. To deal with these and the other priorities in this sector an amount of US\$ 111 million has been allocated under this phase, which will partly meet the requirement.

PART FIVE

PLAN OF PROCUREMENT AND DISTRIBUTION FOR THE AGRICULTURAL SECTOR

INTRODUCTION

50. The agricultural sector continues to play a leading role in providing a substantial portion of the population's nutrition needs. In spite of the various constraints resulting from the sanctions, which in turn brought a total halt to systematic development of the sector, the agriculture sector is deemed to continue to provide the population with the supplementary food requirements.

The sector's cumulative and growing requirements are beyond the meager resources available through the Oil for Food Programme. Consequently, the plan strategies are still oriented towards halting, as much as the possible, the sector's deterioration and increasing the sector's contribution to food availability, giving due consideration to the additional constraints caused by the severe drought.

Agricultural production involves many complex and interrelated biological processes. This dictates that all interventions have to be addressed in a well integrated manner in order to achieve the targeted goals. Provision of the needed basic inputs will strengthen the sector and improve the availability of agricultural products at current or even lower prices.

The overall objective must be to address the problem of the supply of these urgent needs in order to stimulate domestic production of food items and thus offer a local available supplement for the food basket.

ACTIVITIES ENVISAGE BY SUBSECTOR
ENHANCED DOMESTIC FOOD PRODUCTION

A. 51 Production of field crops , vegetables and fruits

51-1 Agricultural production in Iraq is highly mechanized even at the small farmer level and almost one half of the area under crop production lies within the irrigated sector. The overall crop production requirements include proper soil preparation, good quality seeds, and harvesting with minimum losses. Any attempt aiming at maintaining or increasing the level of the crop productivity, therefore should address all those factors.

Failure to adequately respond to each of these inter-related activities, will seriously affect the achievement of the eventual crop production level. It is therefore essential, that appropriate inputs should be available for each activity in a timely manner. Indeed, timeliness is vital to the success of each activity. The time frame often being restricted to a mere day or two, if the resulting yields are not to be lowered.

51-2 Prior to the imposition of sanctions, it was estimated that the total number of agricultural tractors accounted to more than 40,000, working on the 4 million ha of arable land. This represents very approximately one tractor for 100 ha under cultivation. However, currently a large number of agricultural machinery have surpassed their useful life expectancy of 15 years. Agricultural production is therefore seriously affected by this situation. It is of paramount importance to continue addressing the issue of gradual replacement of the entire tractors, combine harvesters, and other agricultural equipment and implements.

51-3 In partial response to the urgent need for remedial measures in this regard, the plan includes the proposed acquisition of 3,000 tractors of different types. It is estimated that this quantity will enable adequate and timely soil preparation, seeding, weed control and fertiliser application for an area comprising approximately 450,000 ha which represents 11% of the total arable area (see Annex AGRI.-1A).

In order to overhaul some of the tractors already available in the country, the plan also includes the provision of spare parts for the different types of existing tractors. (see Annex AGRI-1 appendix 1).

The particular problem of soil preparation will be addressed through the proposed importation of 1,000 mounted moldboard ploughs together with spare parts amounting to 5% of the ploughs' value, as well as 1000 rotary tillers (see annex AGRI-1A).

Timely weed and pest control measures could only be undertaken if adequate numbers of agricultural sprayers are available. The plan therefore

intends to provide 6,000 mounted and wheel-barrow sprayers together with 5,000 knapsack sprayers. (see annex AGRI-1A).

Due to the acute shortage of operational harvesting equipment, post harvest losses are continually increasing. In many cases, the farmer has been forced to revert to manual harvesting methods which invoke high losses. In other cases, the poor conditions of the mechanical harvesters also increases harvest losses. It has been estimated that overall post harvest losses may at present, have risen to 20 or 25 % of the potential crop yield. The plan proposes to import 200 combine harvesters together with 250 pcs, of walking repers , 100 corn huskers and 250 threshing machines, plus assorted spare parts, in attempt to improve mechanical harvesting (see annex AGR-1A-and appendix-2).

51-4 Table (1) shows the allocation of the planned tractors to the 15 Governorates. This allocation is based on the area under cultivation and the number of available and operational tractors in each governorate. A similar procedure will be followed at District level. At farm level, all the farmers are eligible to apply to be an end user of a tractor.

Rehabilitation of seed factories is also addressed in the DP. The plan includes spare parts and essential equipments needed for seed processing . (see annex AGR-1D)

The plan also considered an expansion in the storage capacity of 11 maize threshing and drying plants in the central and southern parts of the country. In this regard the plan will import 20 silos for the storage of the maize produced during the rainy seasons, which coincide with the maize harvesting seasons (see annex AGR-1C and D).

The plan included provision of 5 maize processing plants for threshing and drying maize. This is in line with the Government policy towards the encouragement of animal production in the country through supply of required animal feed.

The Government took several measures, to help the expansion of maize production. Currently, the cultivated area under maize reached 150,000 ha.

The existing maize processing capacity cannot handle the locally produced maize.

The requested plants will add more than 1000 Mt of processing capacity. This will enable the absorption of the local maize products. The plants will be installed in Babylon, Baghdad, Waist, El-Tameem and Salad El-Din. The governorates are selected on the basis of size of land under maize production. (Annex Agri 1D)

Table –1

Distribution Plan For Tractors – Harvesters – Irrigation Pumps – Sprayers

| Governorate | Tractors | Combine Harvesters | Irrigation pumps (with engine) | Irrigation pumps (without engine) | Irrigation pumps (for deep well) | (100) Lt Sprayers | (400-600) Lt Sprayers | (14-20) Lt Knap-Sack Sprayers |
|--------------|-------------|--------------------|---------------------------------|------------------------------------|-----------------------------------|-------------------|-----------------------|-------------------------------|
| Ninevah | 450 | 37 | 480 | 400 | 250 | 680 | 34 | 180 |
| Tameem | 362 | 23 | 480 | 400 | 250 | 550 | 56 | 280 |
| Salahdeen | 274 | 16 | 600 | 500 | 500 | 500 | 118 | 550 |
| Dyala | 240 | 16 | 600 | 500 | 150 | 500 | 116 | 550 |
| Baghdad | 140 | 11 | 330 | 275 | 100 | 500 | 74 | 360 |
| Anbar | 62 | 3 | 240 | 200 | 300 | 150 | 54 | 270 |
| Babil | 162 | 12 | 300 | 250 | 100 | 250 | 84 | 420 |
| Kerbala | 26 | 2 | 180 | 150 | 100 | 100 | 40 | 200 |
| Najaf | 218 | 10 | 300 | 250 | 150 | 250 | 74 | 360 |
| Qadisyia | 252 | 16 | 540 | 450 | 150 | 200 | 68 | 330 |
| Muthanna | 80 | 3 | 240 | 200 | 100 | 100 | 14 | 100 |
| Thi-Qar | 146 | 10 | 360 | 300 | 150 | 120 | 36 | 200 |
| Waist | 388 | 26 | 600 | 500 | 100 | 500 | 136 | 600 |
| Maysan | 176 | 13 | 450 | 375 | 100 | 250 | 24 | 150 |
| Basrah | 24 | 2 | 300 | 250 | 500 | 350 | 72 | 450 |
| Total | 3000 | 200 | 6000 | 5000 | 3000 | 5000 | 1000 | 5000 |

NOTE: The distribution allocations are based on cropping pattern and cultivated area. Final distribution will be decided in proportion to the above table but determined by physical arrival of the consignments.

Agricultural authorities will select beneficiaries on the basis of the following criteria: the farm size (area), the farmer's production index and the current state of old tractors on the farm. As the amount of mechanisation equipment will fall short of present overall needs, priority will be given to those end users who have not benefited from similar distributions, either prior to or after the imposition of sanctions.

As regards the distribution of tractor operated agricultural machinery, all Governorates will be entitled to submit their requirements according to farmer demand. Any justifiable request will then be duly considered within the limitations of total availability.

Table (1) shows the proposed distribution of combine harvesters, which will follow similar criteria and be based upon cropped areas, the farmer production index and the current state of the farmer's harvesting equipment.

52. Lack of good quality seed continues to be one of the major constraints to increase crop production. The imposition of the sanctions resulted in reducing the country's capacity to produce quality certified seeds as well as the capacity to maintain good quality seed processing activities.

The lack of good quality seed remains to be among the serious constraints to crop production. The seed processing capacity in the country is limited. The plan, therefore, includes 5 seed production units which will be installed at the state seed production company within the MOA. The planned seed cleaning and processing is anticipated to provide additional 80,000 Mt of seed.

This will considerably contribute to the availability of good quality seed. The seed which will be distributed in the production areas in all the 15 governorates. (Annex Agri 1D).

Iraq faces a serious shortage of hybrid and certified seeds, especially sunflower and vegetable seeds, together with seeds and seedlings needed for the orchards. Prior to the imposition of sanctions, the country regularly imported both seeds and seedlings to satisfy the requirements. The embargo has interrupted supplies of these essential inputs and seriously lowered production as a consequence.

In order to redress the situation and to enhance the domestic production of fruit, vegetables and sunflower (for vegetable oil), the plan includes the proposed importation of hybrids, certified seeds and seedlings (see Annex AGRI-2 section A and B).

These inputs will be made available to all the farmers already involved in the production of such crops. The distribution plan to each governorate will be determined on the basis of the total area under each of these crops, with due consideration to both ecological and climatic factors.

The proposed quantities represent the following percentages of the annual requirements: 25% of vegetable seeds; 90% of sunflower seeds; 100% of rape seeds; safflower and Soya beans; and 80% of orchard seeds and seedlings.

The Government put great emphasis on the vegetable and fruit production in an attempt to ameliorate the nutritional value of the diet for the population.

However, the availability of cold storage facilities is limited. This causes in a great loss and damage during the peak of production. In addition to wasting valuable nutrients supplementing the food basket, it also affects the profitability of vegetable production at the level of the farmers.

Thus, the plan considers provision of 300 cold storage units with capacity of 100 to 500 mt to be distributed to the public and private sectors in the 15 governorates. (Annex Agri 1D)

The plan is proposing the establishment of 5 ha nursery for banana production. The nursery beside the production and distribution of the banana seedlings will act as an extension center to promote the small scale banana production in the center and south. For this, needed equipment and necessary input are included (Annex AGRI-2 section D).

53. Iraq previously was able to satisfy the greater part of all national fertilizer requirements through national production and manufacture. However, the factories suffered severe damages after 1991 and this has drastically reduced the possibility of self-sufficiency in the production of this input.

Shortage of fertilizer has led to large areas of crops being grown without application of any fertilizer. In other cases, application rates have been considerably reduced which significantly lowered the crop yields. The situation has been further aggravated by the practice of monoculture of cereals, as described above. This seriously reduces soil fertility which can only be redressed by increasing the application rates of fertilizers. The situation was worsened by the lack of sufficient locally produced fertilizer and imported fertilizer which was limited due to financial constraints.

The country's total annual fertilizer requirement is 1.5 million Mt of compound phosphate fertilizer and 1 million Mt of nitrogenous fertilizer.

Prior to the Gulf War, the country's total production capacity was 1.2 million Mt of phosphate fertilizer and more than 1 million mt of urea. The production in relation to limited area under cultivation at that time allowed surplus which was exported.

However, during the sanctions the three state fertilizer plants suffered marked deterioration in their productivity and reached a stage of near total collapse. Last year, local production dropped to 130,000 Mt of phosphate fertilizer and 400,000 Mt of urea. The current production covers only 10% and 40% of the country's need of compound and nitrogenous fertilizers, respectively.

The plan aims to address the current big shortage of fertilizer through provision of needed replacement equipment and spare parts for rehabilitation of the three existing fertilizer plants in the country as indicated in Annex Agri 2 F.

The requested input is anticipated to prevent further deterioration of the current capacity as well as to increase the total fertilizer production capacity to 600,000 Mt of urea and 220,000 Mt of compound fertilizer. The final products will be distributed to the farming community in the 15 governorates at cost price.

To bridge the shortage and in an attempt to maintain the current level of production, it is proposed to import 40,000 Mt of di-ammonium phosphate (DAP) which in fact corresponds to 98,000 Mt of N.P.K (18.18.0). Such a procedure will reduce transportation costs and also help to overcome some of the logistical constraints, which could be encountered during the distribution process. In addition to the DAP, 5228 Mt of potassium , magnesium , zinc , ferrous sulfate and fowler fertilizer are to be imported plus 10,000 Mt of TSB fertilizer. (see annex AGRI-2 section C).

This total quantity of fertilizer has been proposed on the basis of satisfying the minimum plant nutrient requirements for approximately 320,000 ha under both cereal and vegetable crop production.

The allocations accorded to each Governorate will be made with due consideration of the present availability of locally produced fertilisers, together with an assessment of the current state of the soil fertility.

All farmers will have equal accessibility to the planned inputs. They may submit their requests, which will then be evaluated according to the farm holding size, the type of the crop grown and the recommended fertilizer application rates for the particular crop.

Rehabilitation of extension sector is also addressed in the Distribution Plan. the plan includes the essential equipment needed especially for the main 5 centers in the center and south and also for field extension.

54. Agricultural production in many parts of the country relies entirely upon irrigation, whereas in other areas, supplementary irrigation is used to complement rainfall supplies. There is an urgent need both to repair and replace many of the irrigation pumps. Many of the pump units which have been installed previously are powered by electric motors; the frequent electrical power failures which Iraq is currently facing indicate that even installed and operational units cannot always be used.

The plan proposes to redress this situation by acquiring 9,000 irrigation pumping sets of different capacities, in addition to 5,000 pumps (without engine) with 1,500 suitable generators most of which are to be powered by diesel or electricity, and spare parts for irrigation pumps of different types. In response to the prevailing drought situation, 3000 pumps for deep well as well

as spare parts for such a pumps is included . 4,500 sprinkler and drip irrigation units are also included. The overall objectives are to ensure the ability to irrigate an area between 100,000 and 150,000 ha. Naturally, the area which will eventually be irrigated will depend upon total water requirements which in turn, depend upon both the crop under production and the local climatic characteristics during the crop growth cycle (see Annex AGRI IA and appendix 3).

The proposed distribution plan for field irrigation pumps to the Governorates is based upon the total area under irrigated crop production and previous provision of irrigation inputs (see Table 1). Distribution to the end user will depend on current needs of the farmer which will be evaluated once the applications are submitted.

55. Plant pests, diseases and weeds impose a serious threat to crop production. The capacity of the plant protection service to efficiently respond to the increasing threat of plant pest and diseases continue to be limited. Currently only 5 aerial spraying helicopters out of the fleet of 27 are operational. However, their total remaining flying hours never exceeded 300. In response to this serious shortage which is drastically effecting the plant protection operations, the plan included provision of six fixed wing agricultural spraying aircrafts with necessary spare parts, overhauling of 16 spraying helicopters, fast consuming spare parts for the aircraft, 8 fuel tankers with needed spare parts as well as 100 field vehicles for ground control operations. (see Annex AGRI-1B).

With the objective of atleast maintaining present levels of production, a range of herbicides, insecticides, fungicides and other pesticides has been proposed. (see annex AGRI-3). These are needed for more effective control of the most serious and widespread weeds, diseases and pests.

The quantities of the herbicides requested, represents approximately 25% of the total estimated national crop protection requirements. Weed control will be undertaken either through ground or aerial spraying methods. The herbicides will be distributed to farmers according to levels of infestation and the area under crop production.

The pesticides will also be allocated to the Governorates according to infestation levels. The ultra-low volume (ULV) pesticides will be applied through either aerial or ground control application procedures which will be undertaken by the State Board of Plant Protection. Specific targets include sunnpest, local grass hoppers and date palm diseases.

Emulsion concentrate (EC) pesticides will be available to the farmers according to their needs. Upon receipt of specific farmer requests, the plant protection staff will determine the type, quantity and application dose required for each individual case.

Additional agro-chemicals have been requested for the bee industry which is similarly affected by acute shortages of essential control inputs. Distribution and control procedures will be similar to those indicated above for the pesticides. (see Annex AGRI-3).

In order to minimize the cost of some plant protection measures against some plant diseases and weed, which until now rely on expensive pesticide and herbicide, the plan is to import high concentrates of two insecticides: Sumicidin 92% and Diazinon 95 as well as two herbicides Proponil 96% and Glyphosate for weed control in rice fields and orchards, respectively. The concentrates will be used in formulation of big quantities of insecticide and herbicide to be distributed to the farmers in the 15 governorates. (Annex Agri 3E)

B-Animal Production

56. Live stock raising is practiced in most parts of Iraq. Prior to the imposition of the embargo, livestock production contributed between 30 and 40% in value to the total production of the agricultural sector. It also played a important role in providing a significant part of the nutritional requirements at household level.

Livestock production continues to constitute a major source of animal protein throughout the country but as a whole, the sub-sector has suffered greatly as a result of the sanctions and its contribution to the country's food security has been drastically reduced.

Previously, the per capita share of domestically produced animal protein was estimated to be 18 g/day. This may be compared with the minimum per capita requirement recommended by the World Health Organisation (WHO) which is 28 g/day and the current domestic production which is estimated to be only 2 g/day.

Prior to the imposition of sanctions, the government bridges the gap through regular importation of red meat and poultry products. However, this is now severely restricted. As a consequence, a marked deterioration in the general health status of the population has been noted, particularly in children up to 15 years of age, who currently represent 45 % of the total population.

56.1 Animal production levels depend upon a number of inter-related factors of which some of the important ones are genetic stock, feed characteristics and animal health. Furthermore, even genetically improved livestock when managed through appropriate feed regimes, could still fail to reach optimum production levels, if attention is not paid to maintaining the animal's health.

The General Veterinary Directorate within the Ministry of Agriculture is responsible for all aspects of animal health. The total value of annual imports of animal health requirements amounted to some \$ 30 million. This included

acquisition of necessary vaccines, drugs and equipment, as well as necessary field transport means and cold chains facilities.

Previous activities included regular vaccination programmes against serious endemic diseases, together with campaigns for drenching, dipping and spraying animals against endo- and ecto-parasites as well as zoonotic diseases.

This budget has now been drastically reduced and under the oil-for-food programme, the value of inputs imported for animal health purposes has on no occasion exceeded US\$ 5 million every 6 months. The field programme has also been considerably reduced, which is now resulting in serious and widespread outbreaks of a whole range of viral, bacterial, parasitic and tick borne diseases.

Both brucellosis and tuberculosis, which were previously under control, are now spreading widely. Currently, brucellosis is positive in 10% of the sampled sheep. In addition, circumstance of screw worm outbreak and the recent of FMD outbreak, impose further threat to live stock in the country. In addition, cases of endo parasites, congo fever and echinococcus, have been registered.

The drought situation caused drastic effect in livestock animal production. The shortage of voluminous forage and concentrate led to weaken the animals and expose them more vulnerable to the disease. Under the current prevailing situation, the veterinary authority is not in a position to consider major epidemic disease eradication measures. However, to carry out efficient disease control measures during the outbreak, additional financial resources beyond the MOU funds are needed. In the prevailing sanctions situation, any long-term strategy and development activities are not possible.

56.2 The plan aims to make maximum use of the limited available resources, supplementing them in key areas selected on a priority basis, with the overall objective of commencing a programme to redress the present serious situation.

56.3 The proposed rehabilitation of the cold chain facilities comprises provision of spare parts and refrigerators. (see Annex AGRI-4).

56.4 The plan also includes the provision of 10 of 15 ton tankers and mobile dip with trailer for increasing the activity of external parasite equipment in the 15 governorates.

56.5 The plan also considered the provision of priority supplies for animal health. This includes vaccines, veterinary drugs and supplies, together with application equipment (see Annex AGRI.4 A,B,C,D,E,F and G).

Particular attention has been focused on the need for surveillance and control of epidemic diseases. Livestock production in Iraq is normally undertaken according to traditional methods carried out by nomadic groups and

characterised by considerable transhuman movements. Such practices result in scattering the livestock population throughout the country, which in turn, obliged the mobilisation of veterinary service teams. It is only through such methodology, any control or eradication can be achieved.

The plan thus includes the acquisition of mobile veterinary, clinical and field vehicles for transport of the teams involved in the control operations as well as needed chemicals.(see Annex AGRI. 1 and 4).

56.6 The plan includes basic equipment needed to improve the diagnostic capabilities at the various veterinary centers (see Annex AGRI-4).

57. During the 1970s and 1980s, the government focused intense efforts on building up a poultry industry designed to respond to the nutritional needs of the country. This programme included the establishment of a number of different sizes of modern poultry farms for the production of both table eggs and broiler meat. In addition, stock farms, hatcheries and poultry slaughter houses were established.

The programme included economic incentives and fostered the establishment of efficient means for the provision of poultry health services. Regular supplies of the necessary production inputs were organised and by 1989, a total of some 8,000 poultry farms were operational. Production at that time was estimated at 1,700 million table eggs and 250,000 tons of poultry meat.

57.1 The Government of Iraq is very much concerned of the nutritional status of the Iraqi population, in particular, the lack of animal protein in the SCR 986 food basket. For this reason, it is in favour of a plan which would allow enhancement of domestic production of animal protein, especially the reactivation of the poultry industry.

The broiler and table egg reactivation programme under the enhanced phase-V is continuing . The initial impact of the project is already visible with a marked reduction of market prices of poultry products in the country and also stabilisation of red meat market prices. The MOA poultry revival programme managed to rehabilitate 2000 broiler poultry farms out of the farms identified as suitable for rehabilitation in a short time with reasonable resources. The inputs allocated under this Distribution Plan will further sustain the programme achievements and are essential to maintain the planned level of production.

57.2 This plan will address the major components of poultry production through two parallel activities. The first of these will focus on addressing the rehabilitation needs of those farms which most easily and quickly could be brought back into production. The second will provide the basic production

inputs for both table egg and broiler production (see Annex AGRI-5 A,B and C).

The overall objectives include an monthly production of 50 million table eggs and 4,000 to 5,000 mt of broiler meat.

Poultry production requires housing with a controlled environment in order to allow optimum production levels, whilst reducing the risk of high mortality rates due to air borne diseases. The rehabilitation of a further 1,500 farms is envisaged, including the provision of emergency electrical power supplies. Using range of 25-100 KVA generators mounted to 2600 pcs.

57.3 The broiler production cycle is short and requires the regular supply of day old broiler chicks. In addition to the locally produced one day old chicks, importation of 25 million broiler hatching eggs is needed to meet the programme requirements.

The plan addressed the shortage of layer hatching eggs and proposes to import 25,000 and 140,000 one day old grand parent and parent laying chicks in series of consignments. The intervention is aiming at supplying the poultry parent stock farms with needed one day parent chicks required for production of layer hatching eggs (AGRI –5A).

Poultry production requires a supply of balanced rations containing both high quality proteins and micro-nutrients. The bulk of the energy requirements will be met through the use of domestically produced maize, barley, sorghum and other grains. The protein and micro-nutrient requirements for both layers and broilers will be met through imports of Soya bean-meal and poultry concentrate. (AGRI-5A)

The Plan also indicates the need to import equipment for farm transport and for the packing of final products in addition to the spare parts required for the operating 110 hatcheries and 30 slaughter houses and poultry houses and also the rehabilitation of the main feed analysis laboratory in Baghdad. (annex AGRI –5A,B,C,D and E).

The MOA poultry Programme has proven the efficiency in regard to broiler production. Poultry meat produced by the Programme has a positive impact by increasing the availability of meat and raising affordability by a large number of the people.

However, egg production is still lagging behind. The main reason is that the risk involved in rearing pullets from one day to 18-22 weeks is high. In order to encourage expansion in egg production, the MOA is planning to establish facilities for producing layers at laying points to be distributed to layer growers. This will be supported by distribution of layer houses to those who are interested in egg production. To achieve this, the plan includes provision 18 poultry houses to be installed in Baghdad within the premises of the state company of Animal resources for the production of one million layers.

The plan also includes the purchase of 54 layer houses to be distributed to table egg producers. The plan target is production of 250 million table eggs yearly throughout the 15 governorates. (Annex Agri 5F)

58. The plan also considers maintaining and whatever possible enhancing livestock productivity and production, approximately 85% of the cattle population within the country are indigenous breeds with milk production levels ranging from 200 to 1,500 kg per lactation. Since the imposition of sanctions, attempts to improve breeding of the stock through artificial insemination have been virtually paralyzed. There is an urgent need to reactivate the breeding programme, particularly in view of the prevailing economic and food security situation.

To these ends, the plan includes importation of 10,000 pregnant heifer and 20 progeny tested bulls and the acquisition of basic artificial insemination equipment.(see annex AGRI-4 I)

In an attempt to enhance animal protein availability, revival of fish production is considered in this plan. The country has great potential for fish production and considerable investment in this sub-sector, had been made for its development.

Similar to the situation in other sub-sectors, fishery sub-sector has also suffered immensely, and the full exploitation of the available potential is constrained by the lack of resources.

The plan addressed the fishery sub-sector requirement through the provision of equipment needed for fish finger productivity, parent fish stock, needed spare parts to rehabilitate the existing equipment, rehabilitation requirement of fish hatcheries and needed fishing equipment. (see annex AGRI-4 H)

In line with the above and in an attempt to maximize milk production , the plan included the provision of spare parts for milking machine , portable milking units and milk containers to be distributed to dairy stations and to small and medium dairy farms (see Annex AGRI. 4 J)

- 58.1 The plan for the three northern governorates still aims to increase agricultural production and put food items in the market at affordable prices. This will mitigate the negative impact of sanctions both on producers and consumers and also prevent further deterioration in the sector by responding to basic needs of small and medium size farmers.

The plan has been prepared in close consultation and cooperation with the local authorities and took into consideration present and future need of each sub-sector on the basis of the identified priorities and formulated projects aimed at realizing the objectives in enhancing the capabilities of the sub-sectors to produce food commodities.

In animal health and production, the plan responds to the need of the sub-sector in the area of animal disease control, improvement of genetic basis of the local breed, rehabilitation of veterinary infrastructure as well as through provision of small ruminants to vulnerable groups. The plan will also sustain the current poultry programme.

Planned input under farm mechanization is intended to contribute to development of skills, rehabilitation and provision of needed replacement for the existing agricultural equipment in an attempt to improve soil preparation, harvesting and seed processing.

In the irrigation sub-sector, the requested supplies and equipment will provide additional irrigation facilities, enhance capacity in the sub-sector as well as rehabilitation and maintenance of irrigation infrastructure.

The plan also addresses extension, training and research requirements which are needed for improving crop and animal productivity through familiarising farmers with modern technique and better understanding of the agricultural requirements.

Inputs under plant production, which include seed and fertilizer, are anticipated to contribute to the improvement of crop productivity.

Needed inputs for efficient plant protection include provision of pesticide, application equipment and utility, which will facilitate safe and efficient application of agro-chemicals and strengthen the existing infrastructure.

The plan includes provision of inputs for production of various forest tree seedlings needed for catchment of dams and rivers.

Based on the experience gained and the infrastructure and assets already created, the plan anticipates to accommodate any line up on the shelf of projects that would be implemented in the event that the existing drought continues, or if any drought occurs in the future.

IRRIGATION SUB SECTOR

Rainfall in Iraq was extremely low and erratic during the 1998/1999 agricultural season. As a result, both rain-fed and irrigated crops were severely affected.

Lack of essential irrigation water schedules due to low water levels in rivers and reservoirs seriously affected the irrigated crops. The Distribution Plan details immediate intervention measures required for the maintenance and rehabilitation of the existing water resources infrastructures, to arrest the deteriorating situation and the adverse effects of drought on human, crops and livestock. A speedy approval from the UN Sanctions Committee for the distribution plan inputs will enable early intervention to alleviate the disastrous trails left by the drought on human, crop and livestock.

59. Pumping Stations: The water pumping stations play a key role in the irrigation systems which have been established in many parts of Iraq. These not only provide the irrigation water to the fields but also, drain part of it out again. Unfortunately, the vast majority of these stations are suffering from frequent breakdowns as the equipment exceeds the end of its useful life. There is also an acute shortage of necessary spare parts for maintenance and repair. In many of these cases, rehabilitation will prove uneconomic and indeed, will often also not prove to be technically feasible.

The plan therefore proposes that a number of the pumps should be replaced whilst others will be rehabilitated through provision of spare parts. The proposed inputs are presented in the Annex AGRI-6.

The overall objective of this intervention to provide services for approximately 750,000 ha of land which at present, are suffering from a severe lack of pumping capacity and efficiency.

59.1 Maintenance of Irrigation Projects: Whilst the establishment of irrigation projects requires a very high level of investment, it will be a waste if those projects are not adequately maintained. Many of the soils in Iraq are alluvial and are exposed to erosion. This causes high rates of sedimentation in the rivers, which could adversely affect water supply for irrigation purposes.

In order to maintain these resources, the rivers and water channels require continuous dredging. Equipment and sprinkler irrigation systems for maintaining the high efficiency of the irrigation projects need either to be replaced or to be repaired. The annex AGRI-7 indicates the immediate requirements, which have been identified for inclusion in the present plan.

59.2 Surveys and monitoring of water storage structures: The main infrastructure for water storage and control consists of dams and barrages. These not only store the water prior to its distribution but also constitute a vital component of the flood control measures. As part of the maintenance procedure for such structures, periodic monitoring surveys must be undertaken. In addition, the Saddam Dam on the upper Tigris above Mosul requires grouting for its foundations.

The inputs required in this regard are presented in the annex AGRI-8.

59.3 In vast areas, ground water resources represent the only source of irrigation and drinking water. Governorates which currently suffer from water shortages include Kerballa, Najaf, Anbar, Tamem, Diyala, Salah Al-Deen and Basrah.

The inputs consisting of equipment and spare parts which are required for restoring the ground water supply are listed in the annex AGRI-9.

59.4 Water and Soil Analysis: Deterioration of water quality and agricultural soils throughout the country necessitates continuous monitoring by the Ministry of Irrigation. These activities need well equipped laboratory facilities. To enable the Ministry to carry out these activities, necessary laboratory instruments and supplies have been included in the plan (annex-AGRI-10).

60. In the three northern governorates of Dohuk, Erbil and Suleimaniyah, the sector has suffered drastic deterioration as a result of the sanctions. Crop yield remained very low due to , (a) poor land preparation which resulted from obsolete machinery and non-availability of spare parts, (b) increased insect/pest/weed infestations arising from lack of basic agrochemicals, (c) deteriorated soil quality and fertility, (d) destruction of most irrigation infrastructure and service, (e) inadequate training both at farmer and extension worker's levels, and, (f) virtual non-existence of agricultural support services. The livestock sub-sector has suffered considerably as a result of acute shortage of basic inputs and lack of effective veterinary services. Epidemic and zoonotic diseases have re-emerged. The poultry industry, which earlier played a significant role in self-sufficiency in poultry products as well as supplementing the traditional diet, has virtually collapsed due to destruction and shortages of required basic inputs. Deforestation has resulted in soil and environmental degradation in the region. The current Plan intends to address some of these priority requirements.

The implementation of the proposed plan allocated US\$125 million for agriculture, US\$126 million for irrigation for the 15 Governorates and US\$41 million for the three northern Governorates (Dohuk, Erbil and Suleimaniya).

61. In accordance with paragraph 40 of the MOU, the Government of Iraq shall provide the Programme with detailed information about the delivery of supplies and equipment to their locations. In order to facilitate the observations of their use, the Programme will conduct the tasks provided for in paragraph 8 of annex-1 of the MOU.

PART SIX

PLAN OF PURCHASE OF MATERIALS AND REQUIREMENTS FOR EDUCATION SECTOR

62. Primary, secondary and higher education in Iraq have been effected by the severe shortage of basic teaching materials, school furniture, books, stationery, printing requirements, training laboratories and other basic requirements. The magnitude of the needs of the education sector can be seen in light of the total number of students and pupils which is 4.8 million. The damages of the classrooms of about 4.157 thousands school remained non-repaired. Most of these classrooms are without doors or windows. In some schools, the classroom, which usually holds 30 students, enrolls 70 students. A large number of schools still lacks potable water and sanitation. This sector needs an urgent rehabilitation as indicated by the reports of UN agencies and the report of the UN Secretary-General of 12 November 1999(S/1999/1162).
63. The current situation has led to the decrease in school enrollment and to a considerable increase in the rate of school dropouts, particularly in the primary and secondary stages. The quality of teaching has been effected by the lack of basic educational means and materials. Thus, although the general, basic and urgent requirements of the educational sector throughout Iraq are estimated at large amounts, only US\$ 119 million can be allocated for this sector, of which US\$ 60 million have been allocated in the plan for the basic educational requirements up to the secondary stage, and US\$ 18 million for higher education as contained in Annex1-2/education.
64. The basic educational infrastructures in the three northern governorates have been hugely damaged and suffered from severe shortage of basic educational materials, including books. The plan allocates US\$ 41 million to address the current need for rehabilitating the damaged schools, furniture as well as training the personnel. Of the proposed allocation, US\$ 10 million will be directed towards primary education, US\$ 12.5 million for secondary education. There will be an emphasis on the procurement of essential school supplies and equipment, and the development of training materials and rehabilitation of schools will also be a priority. In addition, US\$ 18.5 million will be directed towards higher education, where again the emphasis will be on the procurement of supplies and equipment, including reference books and journals, library supplies, basic office and furniture items, and specialised equipment for technical and vocational training. Emphasis should be given to ensuring equal access to primary special education for children with disabilities and strengthening the capacities and service providers.

PART SEVEN

Infrastructure support for Food, Nutrition , Agriculture and Health sector Transport and Tele Communications Plan of Purchase of Materials and Requirements FOR TELECOMMUNICATIONS AND TRANSPORTATION/BANKING REQUIREMENTS

65. The present state of telecommunication And Transportation systems throughout Iraq is extremely poor. Apart from the wider social considerations, there are negative consequences for the efficient procurement and distribution of humanitarian supplies. The difficulty experienced by the Ministries involved in implementing the MOU when communicating with their suppliers has contributed to delays in ensuring timely submission of applications and subsequently in the delivery of supplies to Iraq. In the health sector, poor communications between warehouses and hospitals have contributed to delays in the collection of supplies by health facilities. The absence of adequate data links have also hindered the timely passing on of accurate information on requirements. In regard to the electricity sector, this has affected the coordination of operation between the source, the transmission stations and substations. In order to ensure a more effective implementation of the distribution plan and enhance utilization of commodities imported, communications equipment is required.
66. A provisional allocation of up to US\$ 64.5 million is envisaged for this sector of that US\$ 1 million is allocated to the three northern governorates. Annex 1.2 (communication and transportation infrastructure support) gives one option for the establishment of a network, which would be available to all Ministries and facilities involved in procurement and distribution of goods supplied through the MOU. A range of technical options is still under consideration to ensure that the resources allocated to communications improvements in all relevant sectors, will provide the most effective logistical support.
- 66.1. TELECOMMUNICATIONS REHABILITATION
- The telecommunication sector is considered as the infrastructure to Iraq's infrastructure. It has a vital role to play in the improvement of food distribution, medicine, water and sanitation, electricity, and the rest of the humanitarian programme sectors. Before 1991 the telephone density in the country was 5.6 telephones per 100 inhabitants. In 1999 this density has decreased to 3.3 due to damaged exchanges, shortage of spares and increase in the population. World telephone density average is 10%.

66.1.1. The present state of telecommunication systems throughout Iraq is extremely poor. Apart from the wider social considerations, there are negative consequences for the efficient procurement and distribution of humanitarian supplies. The difficulties experienced by the Ministries involved in implementing the MOU when communicating with their suppliers have contributed to delays in ensuring timely submission of applications and subsequently in the delivery of supplies to Iraq. In the health sector, poor communications between warehouses and hospitals have contributed to delays in the collection of supplies by health facilities. The absence of adequate data links has also hindered the timely passing on of accurate information on requirements. With regard to the electricity sector, this has affected the co-ordination of operation between the source, the transmission stations and substations.

66.1.2. A recent UN mission (August 1998) to Iraq by experts delegated from the International Telecommunication Union (ITU) has concluded that the entire telecommunication infrastructure is deteriorating to such an extent that the quality of service is beyond comprehension. The rate of unsuccessful calls has risen dramatically in recent years and the quality of transmission channels is so bad that it constitutes a major problem for even the transmission of faxes. At present, the transfer of computer files, (data transfer), is almost impossible via the public telephone network and this affects directly UN observation activities and reporting. The mission, further, concluded that the rehabilitation and modernization of the telecommunication network is a huge development project. It would require an investment of US\$ 1 billion or more and its implementation could take between 7 and 10 years. This of course falls outside the SCR 1281 program.

66.1.3. In order to ensure a more effective implementation of a distribution plan and enhanced utilization of commodities imported, communication equipment is required. The requirements presented in the current distribution plan are those identified by ITU mission referred to in item 4 below and has the following objective:

Replacement of damaged or obsolete equipment and introduction of some new equipment that will improve communications in areas of activities of the humanitarian program in Baghdad and other few selected areas. This will directly have positive impact on the improvement of the procurement and distribution system of humanitarian supplies

66.1.4. The plan addresses a few specific projects in Baghdad where most of the humanitarian programme activities are taking place and about 20% of the Iraqi

population live. Further, it addresses the microwave / optical fiber links between Baghdad and Mousul, Kerkuk , Baquba, Ramadi and Trebil; including outside plant cables & accessories . These are:

First, replacement of seven old crossbar exchanges in Baghdad (Dauodi,Baya,Dora,Jadiriya,Zafaraniya, Sab-Abkar and Central). These exchanges provide telecommunication services to 132 Hospitals, 1500 Primary Health Care Centers, 52 Private Hospitals and all the pharmacies.

Second, replacement of five old crossbar exchanges in (Basrah, Amarah, Ramadi, Baquba and Mousul).

Third, replacement of damaged digital exchanges in Baghdad, (Salihiya and 14th July); and Wasit, (Kut).

Fourth, replacement of analogue microwave links between Baghdad and Mousul with digital links . These microwave links will serve six governorates whose total population is more than (10) million and provide reliable and easy communications between Baghdad and the concerned governorates. This is extremely important for efficient co-ordination and management in the process of the supply and distribution of food and medicine. Some of the direct beneficiaries of this project are those involved in the humanitarian program in the area covered by it including all hospitals and health facilities, food distribution points which includes (10) ration centers, (261) ration branches, (33112) food agents and (10008) wheat flour agents.

Fifth, The cable networks in Baghdad and all other governorates are in a very bad condition. This means that many telephone lines are cross-connected due to contacts or induction effect between various lines in the cable. The provision of new cables and jointing material will improve the quality of service and reduce the mean time between failure of the telephone lines serving hospitals and food distribution points.

Sixth, The construction of an optical fiber link from Baghdad to Trebil. This will provide an international link with Jordan and the Global (FLAG) system. All segments of the Iraqi society will benefit from the availability of low cost telephone calls. This will particularly benefit those Ministries involved in contracting under the MOU, as they will have greater access to potential suppliers and be better able to solve difficulties which arise during the supply process and to monitor the progress of deliveries against orders. Optical fiber offers a cheaper alternative to microwave as the installation costs are less; there is a vastly reduced maintenance requirements; and the cost of using the system is less for all subscribers.

Seventh, There is a need to maintain the existing systems which is outside the projects approved by the MOU. The report of the recent UN expert mission identified a need to spend in excess of US \$ 1 billion to rehabilitate the system. Budget allocation under phases five and six total approximately US \$ 240 million of which no contract have been approved yet.

The "old" equipment requires ever increasing maintenance and, to meet this increasing demand, a number of maintenance vehicles are required. Additionally, the problems with the electricity sector adversely affect the telecommunication network. This is likely to be worse in the coming year because of the low water levels associated with the drought. Auxiliary generators are therefore required.

- 66.1.5. The installation of telecommunication projects requires high level of expertise. Before 1991, the staff of ITPC used to carry out all the installation of telecommunication equipment with minor supervision from the suppliers. The same staff was able to put the majority of the remaining systems, immediately after the war, into operation. The plan envisages the utmost use of local resources for the installation and commissioning of the projects, to minimize expenditures.
- 66.1.6. Whilst the establishment of telecommunication projects requires a very high level of investment, this all risks to be lost unless those projects are adequately maintained. In order to maintain these projects properly, planned on-job training is required. It goes without saying that the new equipment to be purchased is of new technical generation. This will require training in the manufacturer premises.
- 66.1.7. The Plan allocates US\$ 64.5 million to meet the necessary urgent needs and requirements Out of this total US\$ 1 million is allocated for the three northern governorates.
- 66.1.8. In accordance with paragraph 41 of the MOU, the Government of Iraq shall provide the Program with detailed information about the delivery of supplies and equipment to their locations in order to facilitate the monitoring of their use and to make sure of this. The Program will conduct the tasks provided for in paragraph 8 of annex-1 of the MOU.

66.2. RAILWAYS REHABILITATION.

66.2.1 The Iraqi Railways plays a great part in the transportation of food and agriculture products, beginning with the first stage of farming by providing fertilizers, seeds, etc. This kind of transportation from most of the cities in Iraq to different parts of the country requires special wagons and rolling stock. Most of the transportation of food which arrived at Um-Qaser port under the MOU, especially grains and rice, are carried by railways to most cities of Iraq. The Iraqi Railways can not fulfil its obligations to distribute the required quantities of food due to the lack of spare parts for locomotives and wagons, which are needed for this huge transportation task. The number of operating locomotives has been reduced to 65, and the operating number of wagons reduced from 11000 to 1000, representing different kinds of wagons, because of this shortage of spare parts needed for major maintenance. The Iraqi Railways need 365 locomotives per day to be in a position to assure a minimum standard of transportation service. Moreover, the condition of the present railway track system, totaling about 2500 KM, is not in a state of repair which permits the acceptance of this number of locomotives and wagons, because of the non availability of spare parts and materials for maintenance of the tracks, including spare parts for track-maintenance machines. This situation affects the capacity and the safety of the rail transport system, and will only deteriorate further unless urgent measures are taken to halt the decline.

66.2.2. In accordance with paragraph 41 of the MOU, the Government of Iraq shall provide the Program with detailed information about the delivery of supplies and equipment to their locations in order to facilitate the monitoring of their use and to make sure of this. The Program will conduct the tasks provided for in paragraph 8 of annex-1 of the MOU.

66.3. PORTS REHABILITATION

66.3.1. The port of Um-Qaser is the only port in Iraq authorized to receive commodities imported to Iraq against the MOU. Since 1991 the port facilities have not been maintained and consequently they have now degraded to an extent which is severely limiting the ability to handle humanitarian supplies. To prevent further degradation in the situation it is necessary to dredge the entry channels and repair the port facilities.

Dredging - Prior to 1991, the channel and wharf could accept vessels with a draught of 10.5 meters. Today that draught has been reduced to 8.5–9 meters, and as result larger vessels discharge in Jordan (Aqaba) and goods are transported by road to Iraq a distance of 1350 KM. This adds 4 to 5 days to the transit time and increase transport cost by \$38-40 per metric tons. Dredging the

channels and port will increase in the capacity of Um-Qaser will lead to an increase in the capacity and result in more vessels using the port. This will increase the rate of delivery of Humanitarian Supplies into Iraq and reduce the landed cost of goods by \$38 - \$ 40 per metric ton.

Port Facilities - The state of port facilities has similarly degenerated . Mechanical handling equipment is old and inefficient; safety equipment, including fire fighting equipment, is obsolete and unreliable; auxiliary power, essential to provide 24 hours operation and for safety and security, is non-existent. The availability of tugs and pilot vessels imposes delays on berthing and accordingly on the speed of discharging humanitarian supplies. The speed of discharging has a direct effect on the receipt and ultimate distribution of humanitarian supplies, as well as the total cost of commodities. Any improvement in this area will have a positive effect on the humanitarian program.

66-4. A mobile and wireless telephone systems has been also included in the requirements for two main reasons. The first is to fulfill the urgent needs of the health and other humanitarian services, and the second is to act as a stop-gap measure in some areas that have very poor and severely damaged paper insulated copper subscriber networks, or no networks at all.

67. The Central Bank of Iraq has a very urgent need to have the banknote printing machines to improve its capability to print Iraqi banknotes in an acceptable quality reaching the INTERPOL requirements. These good bank notes are very necessary for the public to be used in their our economy, which [is] caused by the simple printing features of these transactions especially for food and other MOU stuff. The people in Iraq are suffering a lot because of the forged money circulated in bank notes. Having the required machines will enhance our capability to supply these people with banknotes as required by the INTERPOL.

68. In accordance with paragraph 41 of the MOU, the Government of Iraq shall provide the Program with detailed information about the delivery of supplies and equipment to their locations, in order to facilitate the monitoring of their use. The Program will conduct the tasks provided for in paragraph 8 of Annex-1 of the MOU.

PART EIGHT
PLAN FOR THE REQUIREMENTS OF THE OIL SECTOR

69. The implementation of the provisions of enhanced distribution plan necessitates achieving steady and sustained rate of oil exports which requires the continuation of the purchase of spare parts, materials and equipment needed for maintenance, rehabilitation and upgrading of obsolete or semi-obsolete equipment and systems as well as development of existing and new oil fields in the upstream sector in order to compensate for the depletion in oil available for export, prevent further deterioration in oil production, processing , storage , transportation capabilities, ensure better reservoir management and improve environmental protections and pollution control.

The Secretary General's letter to the Security Council dated 02/07/1999 re-emphasized his observations in his earlier letter of 15/04/1998 regarding the necessity for expenditure on spares & equipment to prevent severe damage to oil containing rocks & pipeline systems Accordingly, maintaining reliable and safe production and export rates with minimum damage of risk management in the oil fields to generate the revenues required in phase VII requires a substantial increase of funds than that set by para. (8) of UNSCR (1281) to implement the necessary works & projects.

70. In regard to downstream requirements, the provision of various oil products for local consumption meets a range of essential humanitarian requirements including heating, cooking, transportation and electricity production. Hence it is essential to sustain the safe operations of the existing refineries with acceptable standards of efficiency, safety and environmental protection, as well as to continue the rehabilitation, revamping & upgrading of the oil product production & distribution facilities to achieve these aims as well as provide and transport the fuel needed to operate the electricity generating plants in the country. Moreover, overcoming severe and chronic shortages in essential items such as LPG cylinders which have been utilized years beyond their safe working life, requires immediate replenishment and compensation to avoid unnecessary burns and accidents. Similarly, fuel stations and other related facilities should be operated within appropriate safety margins. Hence provision has to be made for the continued supply of urgently required equipment, materials and services in increasing funds, to achieve the above aims.

71. Accordingly and in addition to the Secretary General's recommendation to the Security Council, in his letter of 02/07/1999, to allocate \$ 600 million for the Oil Sector in phase VI , an additional allocation \$ 600 million will be necessary for the supply of spare parts, materials & equipment and cost of service

contracts that are considered necessary to cover the essential and urgent needs of the oil sector in phase VII, to enable it to implement the necessary works and projects mentioned above. \$ (400) million will be for the upstream and \$ (200) million for the downstream requirements.

An annex coded (08-7) outlining the Oil Sector's requirements will be submitted separately by the secretary general after consultations between his authorized representatives and the Iraqi Ministry of Oil as specified by para. (9) of UNSCR (1281).

72. In accordance with paragraph (41) of the M.O.U., the Government of Iraq shall provide detailed and timely information about the delivery of supplies of equipment to their locations in order to facilitate and ensure observation of their use.